

Amendments to the Claims

Claim 1 (Previously amended): Hybrid maize seed designated 39W54, representative seed of said hybrid 39W54 having been deposited under ATCC accession number PTA-4268.

Claim 2 (Original): A maize plant, or its parts, produced by the seed of claim 1.

Claim 3 (Original): Pollen of the plant of claim 2.

Claim 4 (Original): An ovule of the plant of claim 2.

Claim 5 (Currently amended): A tissue culture of regenerable cells or protoplasts of said cells of a hybrid maize plant 39W54, representative seed of said hybrid maize plant 39W54 having been deposited under ATCC accession number PTA-4268, wherein the tissue culture regenerates plants capable of expressing all the morphological and physiological characteristics of said hybrid maize plant 39W54.

Claim 6 (Previously amended): The tissue culture according to claim 5, the cells or protoplasts of said cells having been isolated from a tissue selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.

Claim 7 (Previously amended): A maize plant, or its parts, regenerated from the tissue culture of claim 5 and capable of expressing all the morphological and physiological characteristics of hybrid maize plant 39W54, representative seed having been deposited under ATCC accession number PTA-4268.

Claim 8 (Currently amended): The maize plant of claim 2 wherein said plant further comprises ~~a genetic factor conferring~~ an introgressed cytoplasmic gene that confers male sterility.

Claims 9-11 (Canceled)

Claim 12 (Currently amended): A hybrid maize plant according to claim 2, wherein the genetic material of said plant ~~further comprises~~ contains one or more mutant genes or transgenes which have been introgressed therein, said mutant genes or transgenes selected from the group consisting of: a plant disease resistance gene, an insect resistance gene, a herbicide resistance gene, and a male sterility gene.

Claims 13-19 (Canceled)

Claim 20 (Original): A maize plant, or its parts, having all the morphological and physiological characteristics of the plant of claim 2.

Claim 21 (Currently amended): The maize plant of claim 2 wherein said maize plant further comprises ~~a genetic factor conferring~~ an introgressed cytoplasmic gene that confers male sterility.

Claims 22-24 (Canceled)

Claim 25 (Currently amended): A hybrid maize plant according to claim 20, wherein the genetic material of said plant ~~further comprises~~ contains one or more mutant genes or transgenes which have been introgressed therein, said mutant genes or transgenes selected from the group consisting of: a plant disease resistance gene, an insect resistance gene, a herbicide resistance gene, and a male sterility gene.

Claims 26-32 (Canceled)

Claim 33 (Currently amended): A method of making a hybrid maize plant designated 39W54 comprising:
crossing an inbred maize plant ~~GE541031~~ x GE533274 x GE533275, deposited as ~~PTA-4290~~,
PTA-4284, and PTA-4285 respectively with a second inbred maize plant GE492318,
deposited as PTA-4277; and
developing from the cross a said hybrid maize plant representative seed of which having been
deposited under ATCC Accession Number PTA-4268.

Claims 34-40 (Canceled)

Claim 41 (Currently amended): A method of producing a male sterile maize plant
comprising transforming the maize plant of claim 2 with a ~~genetic factor~~ transgene conferring
male sterility.

Claim 42 (Currently amended): ~~The method of claim 41 wherein a~~ A male sterile maize
plant produced by the method of claim 41 ~~is produced~~.

Claim 43 (New): A method of making an F1 hybrid maize plant comprising:
1) introgressing a mutant gene or a transgene that encodes a product that confers insect
resistance into an inbred maize parent plant GE492318, a representative sample of which has
been deposited as PTA-4277, and
2) crossing said inbred maize parent plant with (PTA-4284 x PTA-4285) to produce said F1
hybrid maize plant.

Claim 44 (New): The maize plant produced by the method of claim 43 wherein said mutant
gene or transgene is an insect resistance gene encoding a *Bacillus thuringiensis* polypeptide.

Claim 45 (New): The maize plant produced by the method of claim 43.

Claim 46 (New): A method of making an F1 hybrid maize plant comprising:

- 1) introgressing a mutant gene or a transgene that encodes a product that confers herbicide resistance into an inbred maize parent plant GE492318, a representative sample of which has been deposited as PTA-4277, and
- 2) crossing said inbred maize parent plant with (PTA-4284 x PTA-4285) to produce said F1 hybrid maize plant.

Claim 47 (New): The maize plant produced by the method of claim 46 wherein said mutant gene or transgene is an herbicide resistance transgene selected from the group consisting of: a transgene conferring glyphosate resistance, a transgene conferring glufosinate resistance, a mutant gene or transgene conferring imidazolinone resistance and a mutant gene or transgene conferring sulfonylurea resistance.

Claim 48 (New): The maize plant produced by the method of claim 46.

Claim 49 (New): A method of making an F1 hybrid maize plant comprising:

- 1) introgressing a mutant gene or a transgene that encodes a product that confers disease resistance into an inbred maize parent plant GE492318, a representative sample of which has been deposited as PTA-4277, and
- 2) crossing said inbred maize parent plant with (PTA-4284 x PTA-4285) to produce said F1 hybrid maize plant.

Claim 50 (New): The maize plant produced by the method of claim 49.

Claim 51 (New): A method of making an F1 hybrid maize plant comprising:

- 1) introgressing a gene that confers male sterility into an inbred maize parent plant GE492318, a representative sample of which has been deposited as PTA-4277, and
- 2) crossing said inbred maize parent plant with (PTA-4284 x PTA-4285) to produce said F1 hybrid maize plant.

Claim 52 (New): The method of claim 51 wherein said F1 hybrid maize plant further comprises said gene that confers cytoplasmic male sterility.

Claim 53 (New): The maize plant produced by the method of claim 51.

Claim 54 (New): A method of making an F1 hybrid maize plant comprising:

- 1) introgressing a gene that encodes a product that confers imidazolinone resistance into an inbred maize parent plant GE492318, a representative sample of which has been deposited as PTA-4277, and
- 2) crossing said inbred maize parent plant with (PTA-4284 x PTA-4285) to produce said F1 hybrid maize plant.

Claim 55 (New): The maize plant produced by the method of claim 54.

Claim 56 (New): A method of making an F1 hybrid maize plant comprising:

- 1) introgressing a mutant gene or a transgene that encodes a product that modifies fatty acid metabolism, that decreases phytate content, or that modifies starch metabolism into an inbred maize parent plant GE492318, a representative sample of which has been deposited as PTA-4277, and
- 2) crossing said inbred maize parent plant with (PTA-4284 x PTA-4285) to produce said F1 hybrid maize plant.

Claim 57 (New): The maize plant produced by the method of claim 56.

Claim 58 (New): The maize plant produced by the method of claim 43 wherein said maize plant exhibits no statistically significant variation from 39W54, other than variation caused by the addition of said mutant gene or transgene, and wherein significance is determined at a 5% significance level when grown in the same environmental conditions as 39W54.